

1. ALL MATERIAL (SANITARY, STORM & WATERMAIN) AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH THE CURRENT CITY OF OTTAWA STANDARD DRAWINGS AND SPECIFICATIONS, AND ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.

4. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE TO THE CENTRELINE OF SEWER OR MAINTENANCE HOLE.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATES FROM ALL UTILITY COMPANIES TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.

8. ALL CONNECTIONS TO EXISTING WATERMAIN STUBS (INCLUDING CONNECTIONS TO EXISTING WATERMAIN) TO BE COMPLETED BY CITY OF OTTAWA FORCES. CONTRACTOR TO PROVIDE EXCAVATION BACKFILLING, COMPACTION AND REINSTATEMENTS, IN ACCORDANCE WITH CURRENT CITY SPECIFICATIONS.

10. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.

11. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.

13. WATERMAINS CROSSING BELOW OR OVER A SEWER SHALL BE IN ACCORDANCE WITH CITY STANDARD DRAWING W25 AND W25.2.

15. WATERMAIN THRUST BLOCKS TO BE CONSTRUCTED PER CITY STANDARD DRAWINGS W25.3 AND W25.4. THRUST BLOCKS ARE REQUIRED AT ALL BENDS, TEES, PLUGS, DEAD END CAPS, VALVES, REDUCERS, OR OTHER FITTINGS WHERE CHANGES OCCUR IN PIPE DIAMETER OR DIRECTION ALL IN ACCORDANCE WITH CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.

16. WATERMAIN SERVICE LATERAL TO BUILDING TO BE PVC DR-18.

17. ALL WATER DISTRIBUTION INFRASTRUCTURE TO BE PROVIDED WITH CATHODIC CORROSION PROTECTION AS PER CITY STANDARD W40.

18. HYDRANTS SHALL BE INSTALLED AS PER CITY STANDARD DRAWING W19.

19. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER. ASPHALT RESTORATION SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARD DRAWING No. R10.

20. SANITARY AND STORM SERVICE LATERALS TO BUILDING TO BE PVC DR-28.

21. SANITARY AND STORM SERVICES TO BE IN ACCORDANCE WITH CITY STANDARD DRAWING S11.1 AND PROVIDED WITH 0.3m MINIMUM VERTICAL CLEARANCE TO WATERMAIN. REFER TO WATERMAIN TABLE FOR CROSSING DETAILS.

22. ALL FLOWS FROM THE UNDERGROUND PARKING GARAGE ARE TO BE CONVEYED TO THE SANITARY SERVICE. SANITARY FLOWS ARE TO BE PUMPED TO THE PROPOSED SANITARY SERVICE (TYP.)

23. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.

24. SERVICES TO BE TERMINATED 1.0m FROM BUILDING WALL (TYPICAL). FOR STRUCTURAL WORK PROPOSED SERVICES TO BE SLEEVED THROUGH FOUNDATION WALL.

25. BUILDER TO INSTALL BACKWATER VALVES ON SANITARY AND STORM SERVICE
LATERALS IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAIL DRAWINGS
S14, S14.1, S14.2.

26. ALL STORM & SANITARY MAINTENANCE HOLES C/W FRAME AND COVER AS PER CITY STANDARD DRAWINGS 24 AND 24.1. SANITARY AND STORM MAINTENANCE HOLES TO HAVE WATERTIGHT COVERS PER OPSD 401.030.

27. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION DEPICTED ON THIS PLAN. PLEASE REFER TO THE 'VERTICAL CONTROL POINTS' SKETCH PROVIDED BY STANTEC SEPTEMBER 27, 2024 FOR LOCATION AND DESCRIPTION OF CONTROL POINTS.

28. CATCH BASINS FOR LANDSCAPED APPLICATION (CB 101, CB 102) TO BE IN ACCORDANCE WITH CITY STANDARD DETAIL S31 OR APPROVED EQUIVALENT. CB112 TO BE 600x600mm PRECAST CONCRETE PER OPSD 705.010 C/W FRAME AND COVER AS PER CITY OF OTTAWA STANDARD DRAWING S19.

29. FILL USED FOR GRADING BENEATH THE BASE AND SUB-BASE LAYERS OF PAVED AREAS SHOULD CONSIST, UNLESS OTHERWISE SPECIFIED, OR CLEAN IMPORTED GRANULAR FILL, SUCH AS OPSS GRANULAR 'A', GRANULAR 'B' TYPE II OR SELECT SUB-GRADE MATERIAL. THIS MATERIAL SHOULD BE TESTED AND APPROVED PRIOR TO DELIVERY TO THE SITE. THE FILL SHOULD BE PLACED IN LIFTS NO GREATER THAN 300mm THICK AND COMPACTED USING SUITABLE COMPACTION EQUIPMENT FOR THE LIFT THICKNESS. FILL PLACED BENEATH THE PAVED AREAS SHOULD BE COMPACTED TO AT LEAST 100% OF ITS SPMD.

30. CONCRETE CURB TO BE BARRIER TYPE AS PER STANDARD DRAWING SC1.1.

31. CONCRETE SIDEWALKS AND WALKWAYS TO BE CONSTRUCTED AS PER CITY OF OTTAWA DETAIL SC2 (OR SC1.4) AND SC4.

32. EXCAVATION FOR THE INSTALLATION OF SERVICES ALONG OR IN PROXIMITY OF A BUILDING OR A STRUCTURE IS TO BE CONTAINED WITHIN A TRENCH BOX WIDTH AND IS TO ENSURE NO CONFLICT WITH ANY FUTURE FOOTINGS. SERVICE TRENCHES SHALL BE BACKFILLED WITH GRANULAR 'A' COMPACTED TO 100% SPMD WHERE ADJACENT TO A BUILDING FOR THE SECTION PARALLEL TO THE UNIT PLUS 5.0 M. PART OF THE TRENCH FROM THE BUILDING TO THE TRENCH BOX SHALL BE BACKFILLED COMPACTED TO 100% SPD TO 1.0m below EXISTING GRADE FOR FULL TRENCH WIDTH OF DISTURBED AREA SHALL BE USED FOR BACKFILL. INCLUDING ALONG ANY SEWERS AND WATERMANS ADJACENT TO A BUILDING OR OTHER STRUCTURE.

33. MATCH EXISTING ELEVATIONS AT PROPERTY LIMITS. ENSURE POSITIVE DRAINAGE TOWARDS A SUITABLE OUTLET WHETHER INDICATED OR NOT.

34. THE CONTRACTOR SHALL PROVIDE ALL PAVEMENT MARKINGS AS SHOWN, INCLUDING HANDICAPPED PARKING SYMBOLS.

35. ALL GROUNDWATER PUMPED FROM THE SITE TO BE METERED AND A PERMIT TO TAKE WATER OBTAINED AS APPLICABLE.

36. CONTRACTOR TO INSTALL TEMPORARY INLET CONTROL DEVICE C/W 24mm DIA. ORIFICE AT THE OUTLET OF MH18. THE ICD SHALL BE INSTALLED AND OPERABLE AT THE ONSET OF THE SANITARY SEWER CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL WRITTEN NOTIFICATION BY ENGINEER TO BE REMOVED.

37. CONTROLLED ROOF DRAINS AND LANDSCAPED CB 100 ARE TO BE CONVEYED TO THE FREE FLOWING STORM SERVICE/SEWERS.

38. THE PROPOSED AREA DRAINS (CB 103, CB 104 AND CB 105) WITHIN THE PARKING LOT ARE TO BE INSTALLED WITH THE FOLLOWING:

- INSTALLATION OF THE ZURN PRODUCT SHALL INCLUDE AT MINIMUM A 100mm CONCRETE COLLAR AROUND THE ZURN SYSTEM AND PIPE FROM THE TOP OF SLAB TO 50mm BELOW F/G ELEVATION.

- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

39. PROPOSED PARKING AREA DRAINS (CB 103, CB 104 AND CB 105), AND RAMP TRENCH DRAIN ARE TO BE CONVEYED TO THE PROPOSED CISTERN VIA THE INTERNAL PLUMBING, REFER TO THE MECHANICAL DRAWINGS FOR DETAILS.

- ACCESS LANE, FIRE TRUCK LANE, RAMP AND HEAVY TRUCK PARKING AREAS
(ABOVE PODIUM DECK)
40mm WEAR COURSE - 12.5 CAT B/HI 3

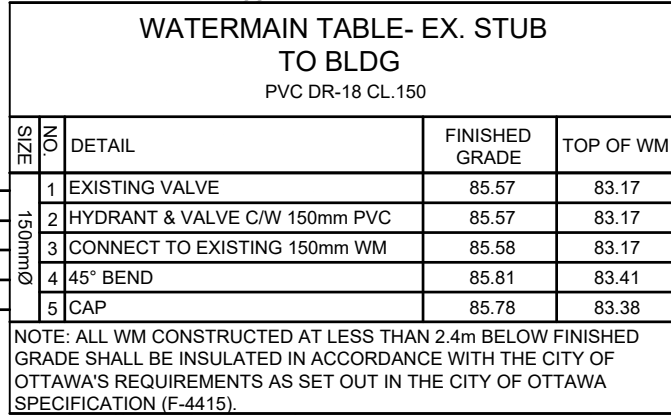
C300mm - OPSS 1010 GRANULAR 'A' BASE CRUSHED STONE COMPACTED TO 100%
SPMDD

- ACCESS LANE, FIRE TRUCK LANE, RAMP AND HEAVY TRUCK PARKING AREAS (OUTSIDE PODIUM DECK)
50mm WEAR COURSE - SP 12.5
60mm BINDER COURSE - SP 19.0
150mm - OPSS 1010 GRANULAR 'A' BASE CRUSHED STONE COMPACTED TO 100% SPMD
600mm - OPSS 1010 GRANULAR 'B' SUB-BASE TYPE II COMPACTED TO 100% SPMD

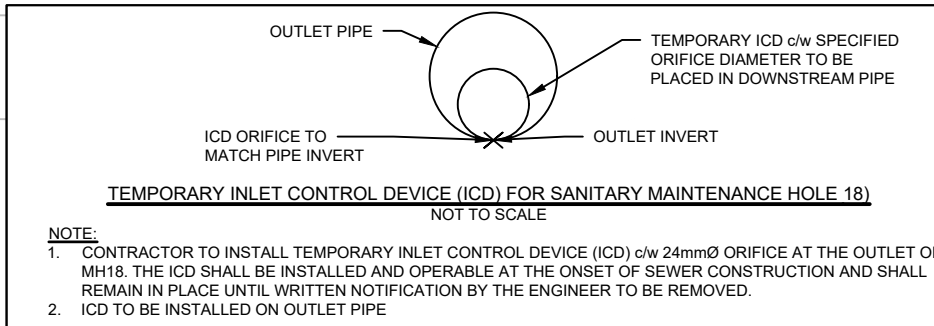
PROPOSED RESIDENTIAL DEVELOPMENT 2983, 3053, AND 3079 NAVAN ROAD
OTTAWA, ONTARIO* PREPARED BY EXP DATED JANUARY 16, 2025:

THE JOINT BETWEEN A RIGID PAVEMENT STRUCTURE (CONCRETE PAVEMENT)

STRUCTURE) AND FLEXIBLE PAVEMENT STRUCTURE (ASPHALT PAVEMENT STRUCTURE) SHOULD BE SEALED WITH A POLYMER MODIFIED BITUMEN STRIP TO PREVENT INGRESS OF WATER, DIRT, VEGETATION AND OTHER PARTICLES THAT WOULD COMPROMISE THE PERFORMANCE OF THE PAVEMENTS AND TO WITHSTAND DIFFERENT RATES OF EXPANSION BETWEEN THE 2 DIFFERENT TYPES OF PAVEMENT STRUCTURES.



REAR YARD CATCH BASIN TABLE														
LOCATION	CB ID Number	TAG	Inlet					Outlet					CATCH BASIN TYPE	ICD TYPE
			Pipe Dia (mm)	Pipe Length (m)	Pipe Slope (%)	Invert	COVER (m)	Pipe Dia (mm)	Pipe Length (m)	Pipe Slope (%)	Invert	COVER (m)		
BLOCK 14	CB102	05.90	-	-	-	-	-	250	29.7	1.0	84.20	1.15	CATCH BASIN FLOWBYP FOR CITY STANDARD E30	NO ICD
	CB101	05.05	250	29.7	1.0	63.90	1.50	250	5.75	0.5	83.90	1.50	600 mm x 600 mm CATCH BASIN FOR CPTD T05.00	Vertice_CD_70
	CB100	05.05	-	-	-	-	-	250	4.6	0.5	83.90	1.71	600 mm x 600 mm CATCH BASIN FOR CPTD T05.00	Vertice_IPX_T05.00



KEY PLAN N.T.S.

LEGEND

	SITE BOUNDARY
	UNDERGROUND GARAGE LIMITS
	EASEMENT SETBACK
	DEDICATED SNOW STORAGE AREA
	EXISTING CATCH BASIN
	CATCH BASIN c/w ICD
	TEE AND ELBOW REAR YARD CATCH BASIN AND PERFORATED PIPE
	PROPOSED CATCH BASIN LEAD
	PROPOSED WATERMAIN, HYDRANT, CURB STOP AND SERVICE POST, VALVE & VALVE BOX AND REDUCER
	EXISTING WATERMAIN, VALVE & HYDRANT
	PROPOSED STORM SEWER & MANHOLE
	EXISTING STORM SEWER & MANHOLE
	PROPOSED SANITARY SEWER & MANHOLE
	EXISTING SANITARY SEWER & MANHOLE
	TRENCH DRAIN
	PROPOSED WEEPING TILE
	ROOF DRAIN (REFER TO MECHANICAL)
	CONCRETE BARRIER CURB
	DEPRESSED CURB
	CONC. SIDEWALK
	EX CONC. SIDEWALK UNDER SEPARATE CONTRACT
	GRASSED AREA
	WATER METER
	REMOTE METER
	PROPOSED SILT FENCE
	SILTSACK® FOR EXISTING STREET INLET

No.	ISSUE / REVISION	DD/MM/YY
4	ISSUED FOR FOURTH ENGINEERING SUBMISSION	04/03/25
3	ISSUED FOR THIRD ENGINEERING SUBMISSION	10/10/24
2	ISSUED FOR SECOND ENGINEERING SUBMISSION	26/07/24
1	ISSUED FOR FIRST ENGINEERING SUBMISSION	14/12/23

THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.L.R. J.L.R. MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.L.R. AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.L.R.

VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING.

SCALE: 1:200

CLIENT:

CONSULTANT:

CONSULTANT:

PROJECT:

NAVAN RESIDENTIAL AND COMMERCIAL BLOCK 14

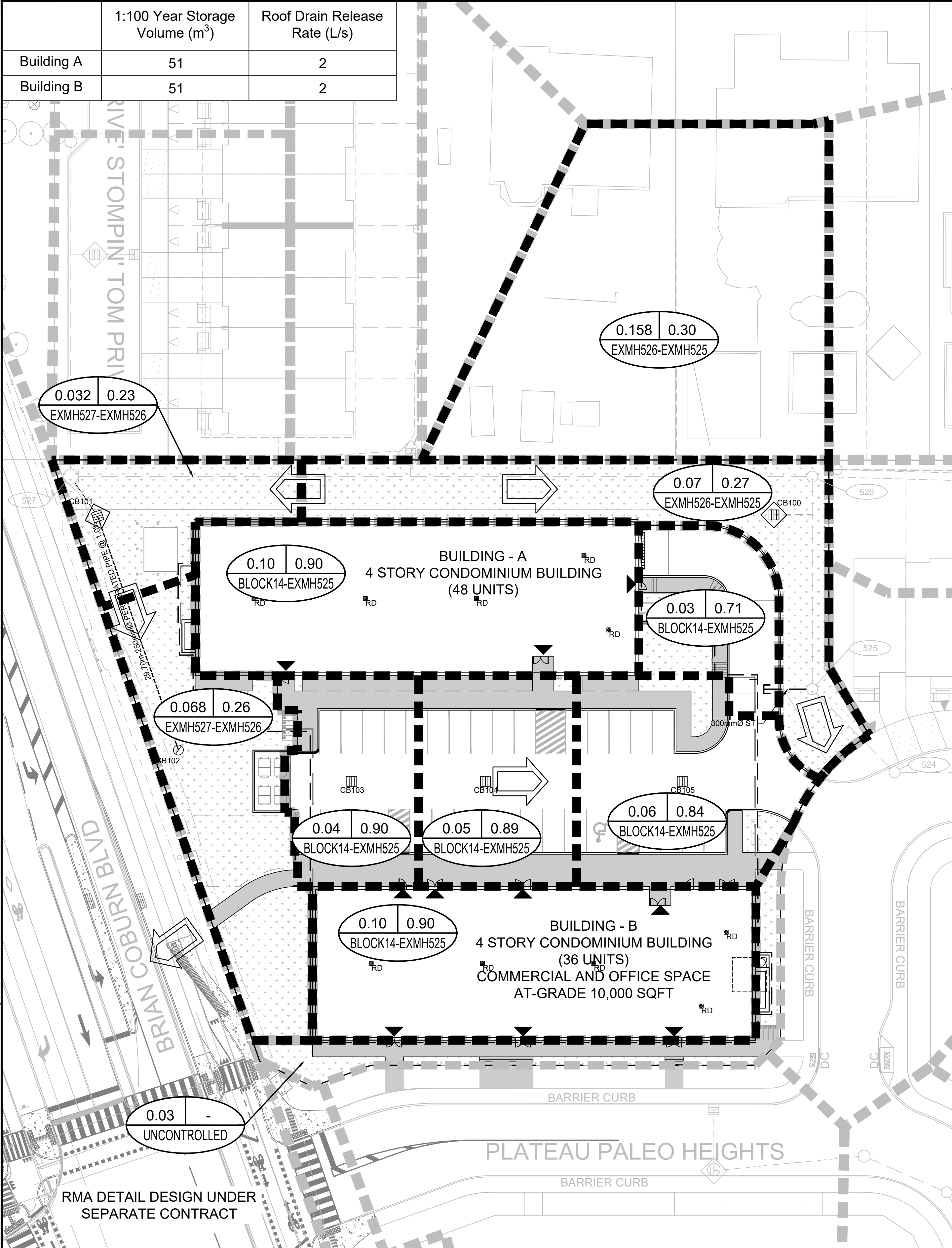
2983 NAVAN ROAD OTTAWA, ONTARIO

DRAWING:

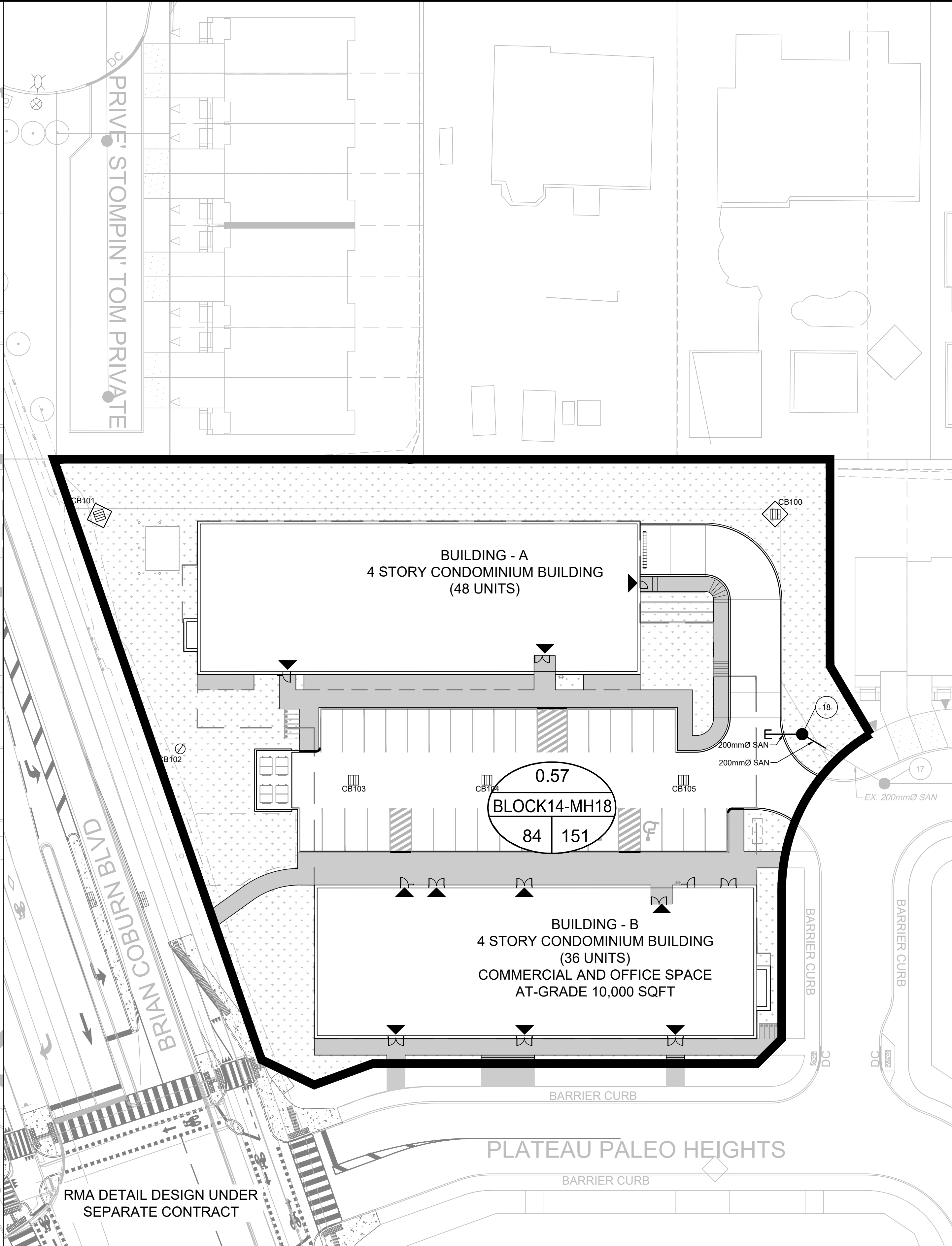
SITE SERVICING PLAN

DESIGN: KF/MM	DRAWING #: C01
DRAWN: KC	
CHECKED: KF	
JLR #: 29899-002	

	1:100 Year Storage Volume (m³)	Roof Drain Release Rate (L/s)
Building A	51	2
Building B	51	2



STORM DRAINAGE



SANITARY DRAINAGE

KEY PLAN
N.T.S.

LEGEND

- SITE BOUNDARY
- PROPOSED STORM DRAINAGE BOUNDARY
- MAJOR OVERLAND FLOW DIRECTION
- AREA IN HECTARES
- RUNOFF COEFFICIENT
- PIPE REACH UPSTREAM CATCHBASIN TO DOWNSTREAM CATCHBASIN
- EXISTING CATCH BASIN
- CATCH BASIN c/w ICD
- TEE AND ELBOW REAR YARD CATCH BASIN AND PERFORATED PIPE
- PROPOSED CATCH BASIN LEAD
- PROPOSED STORM SEWER & MANHOLE
- EXISTING STORM SEWER & MANHOLE
- PROPOSED SANITARY DRAINAGE BOUNDARY
- AREA IN HECTARES
- PIPE REACH UPSTREAM MAINTENANCE HOLE TO DOWNSTREAM MAINTENANCE HOLE
- POPULATION
- NUMBER OF UNITS
- PROPOSED SANITARY SEWER & MANHOLE
- EXISTING SANITARY SEWER & MANHOLE

No.	ISSUE / REVISION	DD/MM/YY
4	ISSUED FOR FOURTH ENGINEERING SUBMISSION	04/03/25
3	ISSUED FOR THIRD ENGINEERING SUBMISSION	10/10/24
2	ISSUED FOR SECOND ENGINEERING SUBMISSION	28/07/24
1	ISSUED FOR FIRST ENGINEERING SUBMISSION	14/12/23

THESE DRAWINGS HAVE BEEN PRODUCED BY J.L. RICHARDS & ASSOCIATES LIMITED AND ARE SUBJECT TO COPYRIGHT AND USE RESTRICTIONS SET OUT IN THE APPLICABLE PROJECT CONTRACT. ANY USE, REUSE, OR MODIFICATION OF THESE DRAWINGS FOR PURPOSES OTHER THAN THE ORIGINAL PROJECT OR EXECUTION OF THE DESCRIBED WORK IS NOT PERMITTED OR ENDORSED WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF J.L.R. J.L.R. MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, OF THE SUITABILITY OR FITNESS OF THESE DRAWINGS FOR ANY OTHER PURPOSE, AND ANY PARTY WHICH CHOOSES TO USE, MODIFY, OR OTHERWISE RELY ON THESE DRAWINGS WITHOUT J.L.R.'S AUTHORIZATION ACCEPTS THESE LIMITATIONS AND DOES SO AT THEIR SOLE RISK AND WITHOUT LIABILITY TO J.L.R.

VERIFY SHEET SIZE AND SCALES. THE BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING.

SCALE: 1:300

CLIENT:

CONSULTANT:

PROFESSIONAL STAMP

PROJECT NORTH

PROJECT:

NAVAN RESIDENTIAL AND COMMERCIAL BLOCK 14

2983 NAVAN ROAD OTTAWA, ONTARIO

DRAWING:

STORM AND SANITARY DRAINAGE PLANS

DESIGN:	KF/MM	DRAWING #:
DRAWN:	KC	C03
CHECKED:	KF	
JLR #:	29899-002	